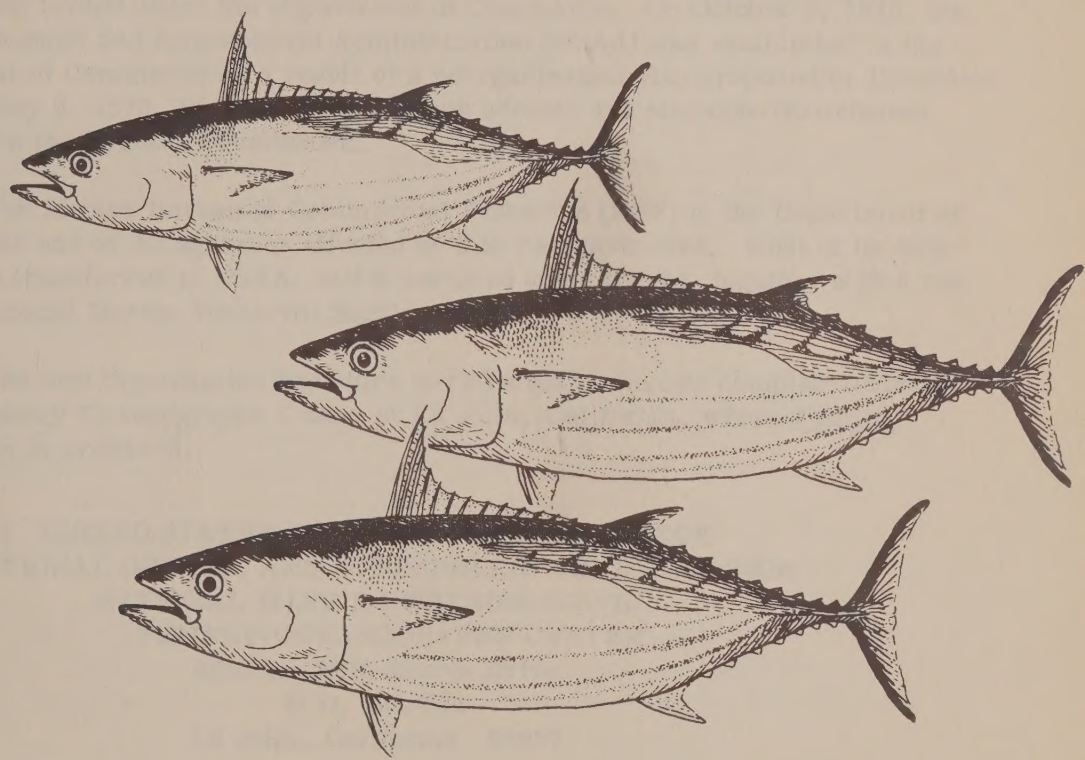
UNITED STATES
PARTMENT OF
OMMERCE
UBLICATION

OCTOBER, 1970

FISHING INFORMATION

UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION



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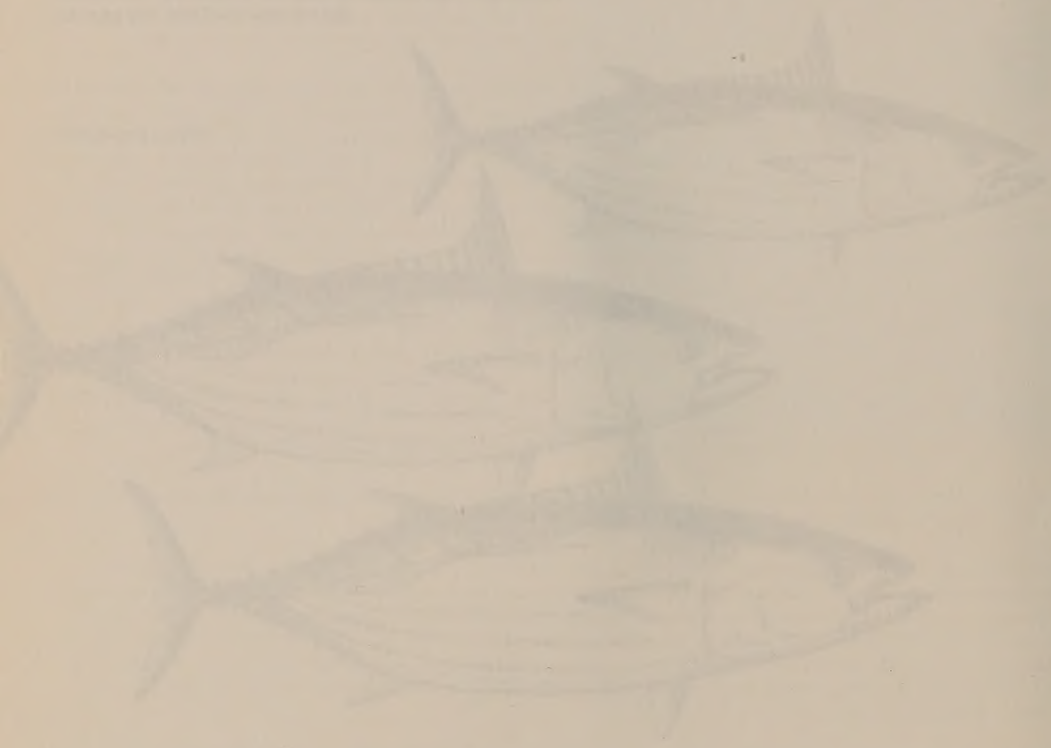

CALIFORNIA FISHERY MARKET NEWS MONTHLY SUMMARY—PART 2

Bureau of Commercial Fisheries Becomes National Marine Fisheries Service

This issue of Fishing Information marks the first time that this publication is being issued under the Department of Commerce. On October 3, 1970, the National Oceanic and Atmospheric Administration (NOAA) was established in the Department of Commerce as a result of a reorganization plan proposed by President Nixon on July 9, 1970, to consolidate various oceanic and atmospheric oriented activities in the Federal Government.

The former Bureau of Commercial Fisheries (BCF) in the Department of Interior was one of the agencies affected by this reorganization. Most of its functions were transferred to NOAA, and it assumed some others, together with a new name - National Marine Fisheries Service.

The new organization structure is reflected in the new complete address for the Fishery-Oceanography Center at La Jolla, California, where Fishing Information is prepared.

UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
FISHERY-OCEANOGRAPHY CENTER
8604 La Jolla Shores Drive
P.O. Box 271
La Jolla, California 92037

An abbreviated address which may be used in lieu of the one above is:

NATIONAL MARINE FISHERIES SERVICE
FISHERY-OCEANOGRAPHY CENTER
P.O. Box 271
La Jolla, California 92037

SEA SURFACE TEMPERATURE CHARTS, PACIFIC OCEAN
OCTOBER 1970

Acknowledgements

The following organizations and stations contributed data for the October 1970 charts:

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Scripps Institution of Oceanography Research Vessels ALEXANDER AGASSIZ, MELVILLE, ALPHA HELIX, FLIP, ELLEN B. SCRIPPS
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U.S. Coast Guard Cutter ACUSHNET
U.S. Naval Weather Service, Fleet Numerical Weather Central, Monterey, California
Fishing Vessels CRUSADER, WEST POINT

Charts

Figure 1. --Mean sea surface temperature, eastern north Pacific Ocean. Squares show temperatures at weather ship stations. Numerals on shore are temperatures at coastal and lightship stations.

Figure 2. --Mean sea surface temperature chart, western north Pacific Ocean.

Figure 3. --Deviation of sea surface temperatures, eastern north Pacific Ocean from long term charts of H. O. 225. Hatched areas are colder in 1970.

Figure 4. --Deviation of sea surface temperatures, eastern north Pacific Ocean from those of September 1969. Hatched areas are colder in 1970.

Figure 5. --Mean sea surface temperature, eastern tropical Pacific Ocean. Numerals on shore are temperatures at coastal stations.

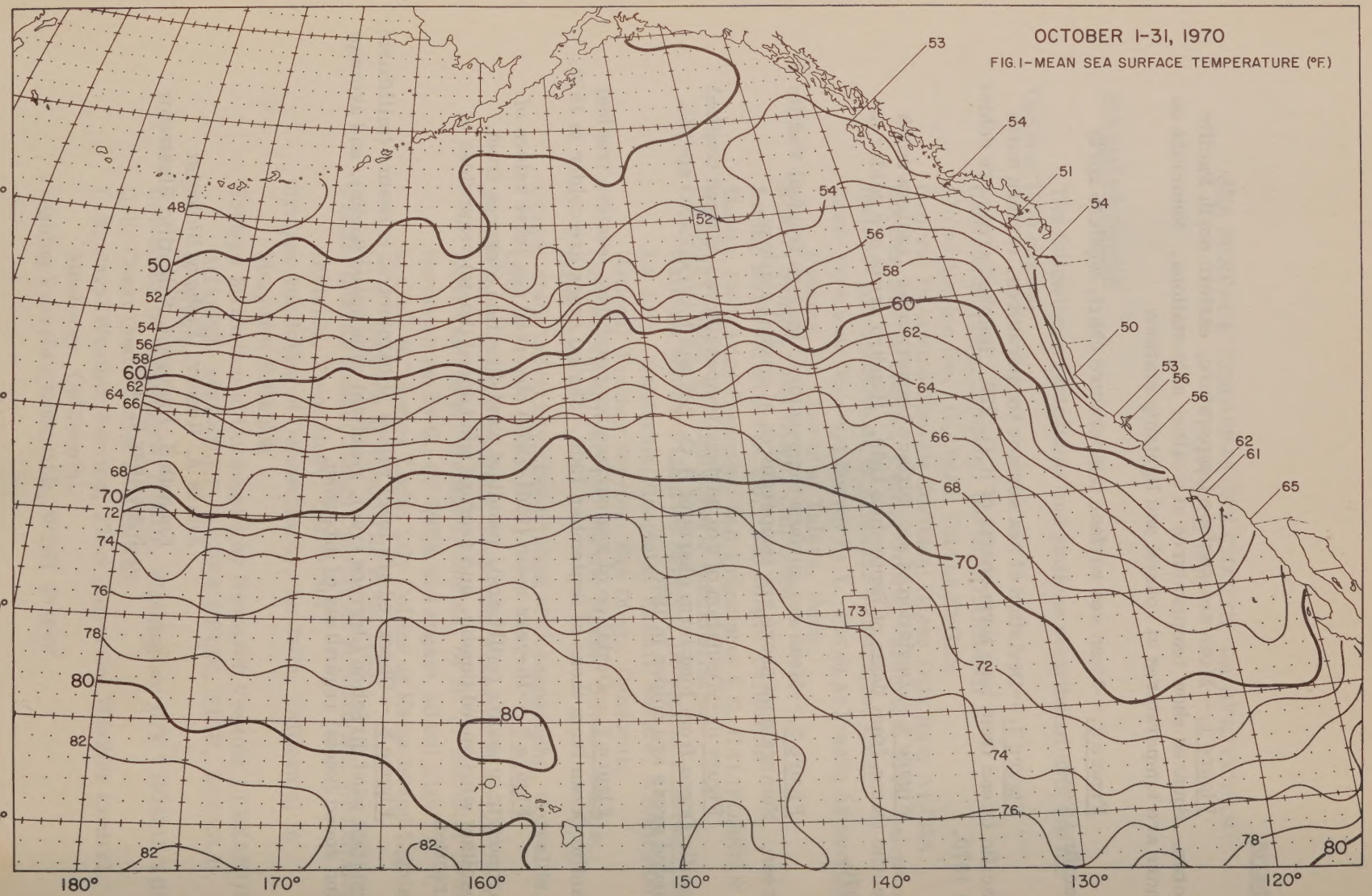
Figure 6. --Deviation of sea surface temperatures, eastern tropical Pacific Ocean from long term charts of H. O. 225 and NAVOCEANO sp-123. Shaded areas are colder in 1970.

Figure 7. --Deviation of sea surface temperatures, eastern tropical Pacific Ocean from those of September 1969. Shaded areas are colder in 1970.

Figure 8. --10-year mean (1961-1970) observed sea level values of barometric pressure (millibars), resultant wind direction (degrees true), resultant wind speed (knots), and average wind speed (knots) regardless of direction.

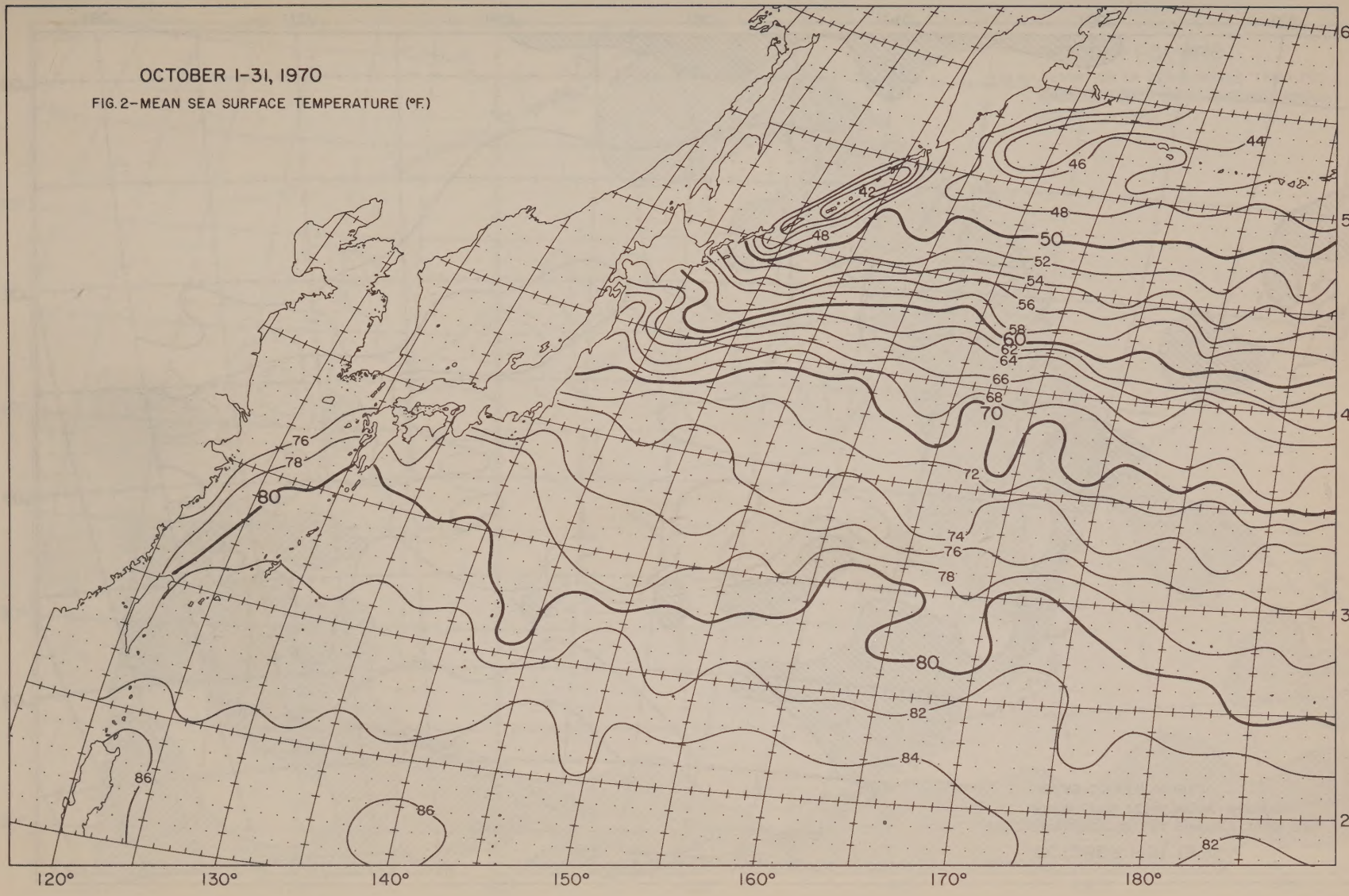
Figure 9. --Observed sea level values of barometric pressure (millibars), resultant wind direction (degrees true), resultant wind speed (knots), and average wind speed (knots) regardless of direction.

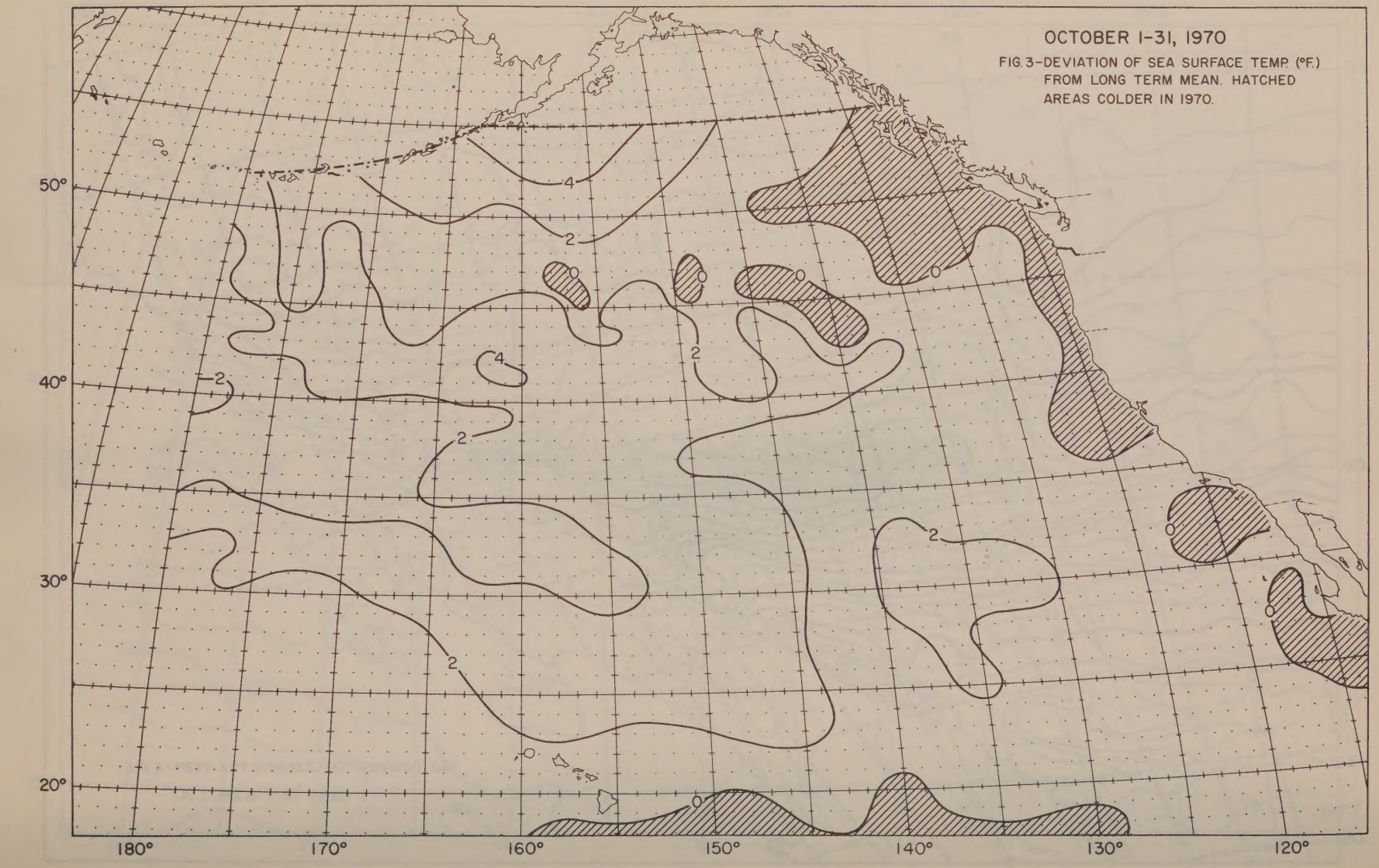
James A. Renner, Fishery Biologist
Kenneth S. Raymond, Scientific Illustrator
November 9, 1970

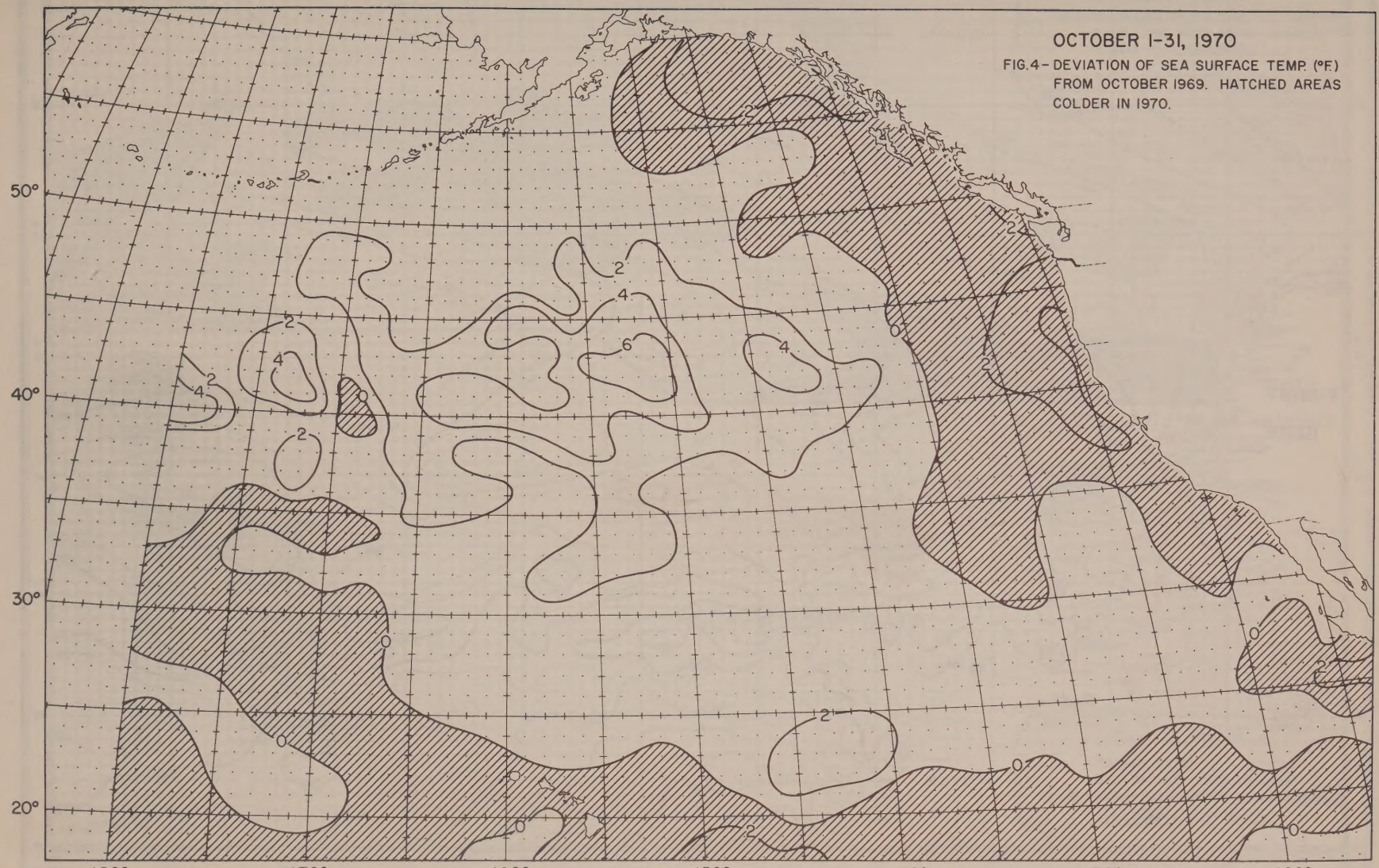

OCTOBER 1-31, 1970
FIG. 1-MEAN SEA SURFACE TEMPERATURE (°F.)
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
48
50
52
54
56
58
60
62
64
66
68
70
72
74
76
78
80
82
53
54
51
54
50
53
56
56
62
61
65
52
73

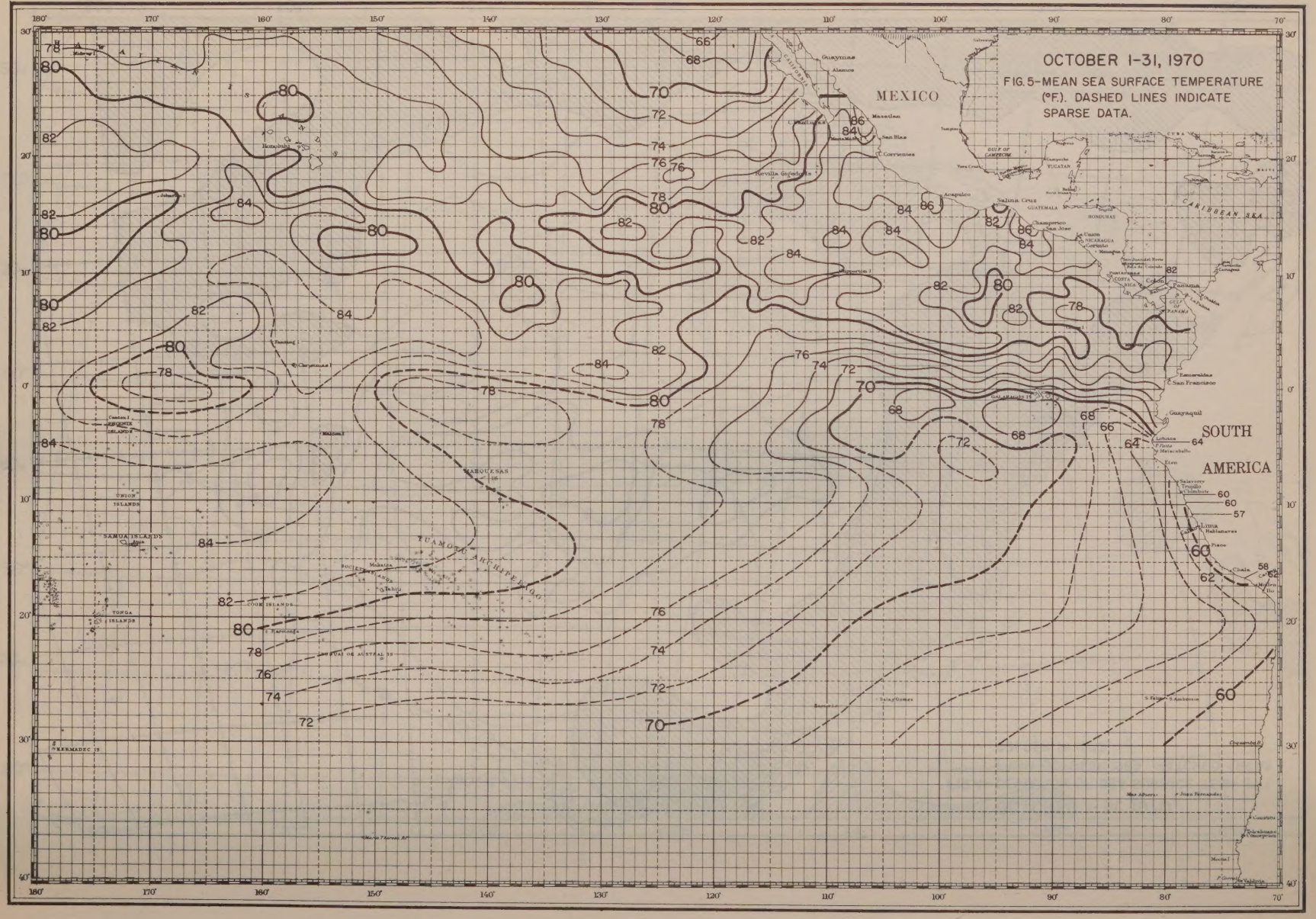
OCTOBER 1-31, 1970

FIG. 2-MEAN SEA SURFACE TEMPERATURE (°F.)

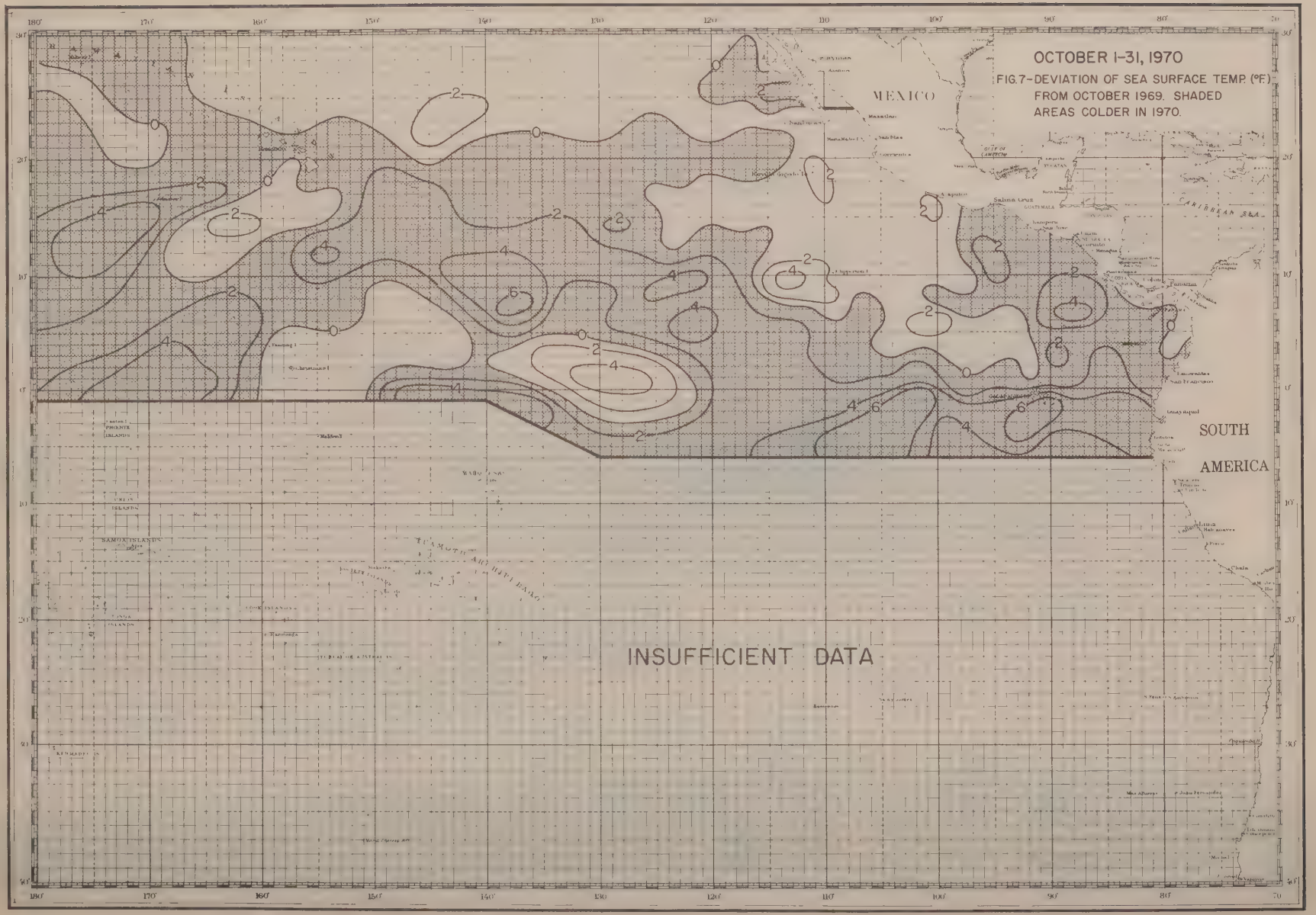


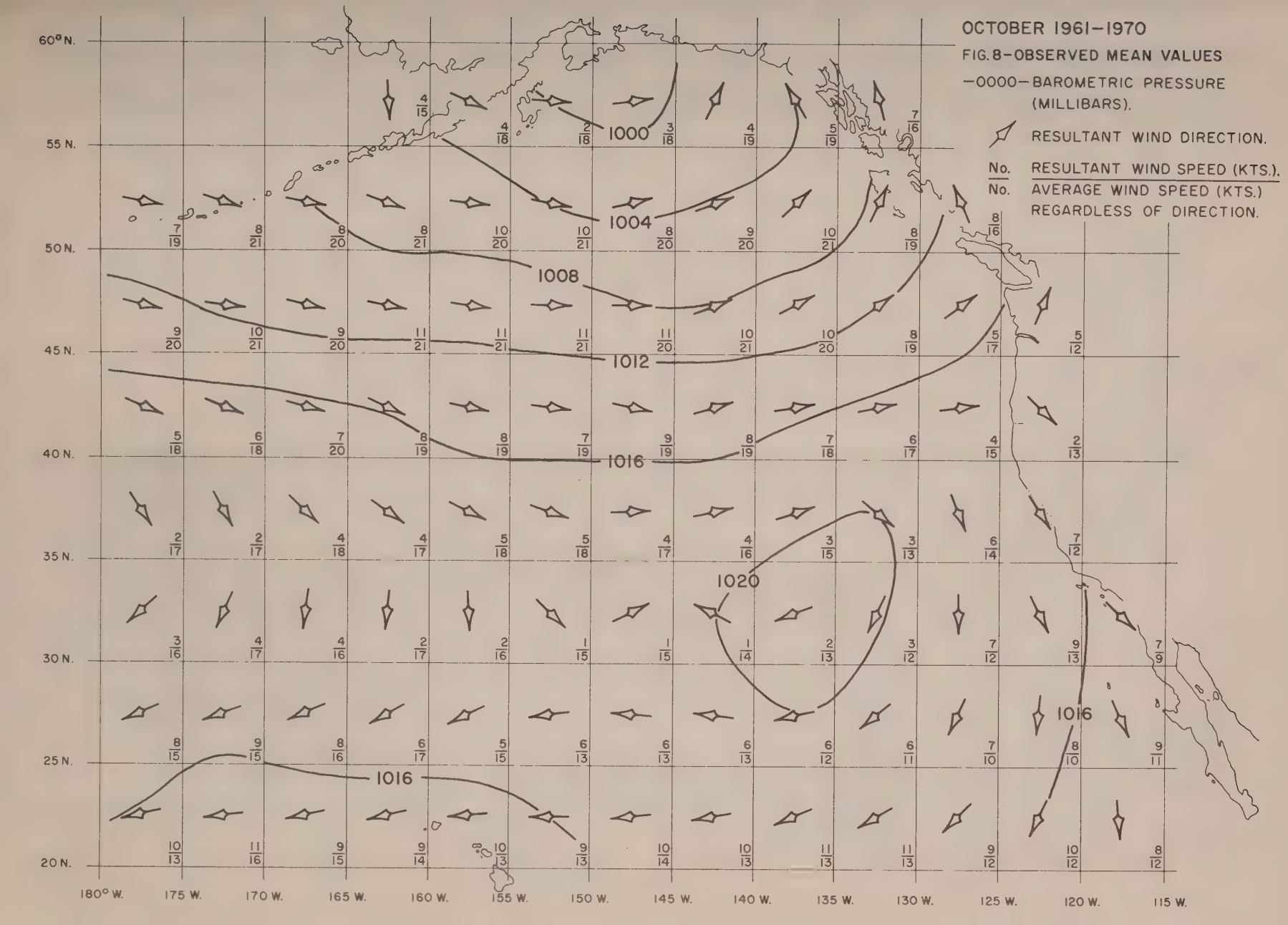

OCTOBER 1-31, 1970
FIG. 3-DEVIATION OF SEA SURFACE TEMP. (°F.) FROM LONG TERM MEAN. HATCHED AREAS COLDER IN 1970.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
4
2
0
-2

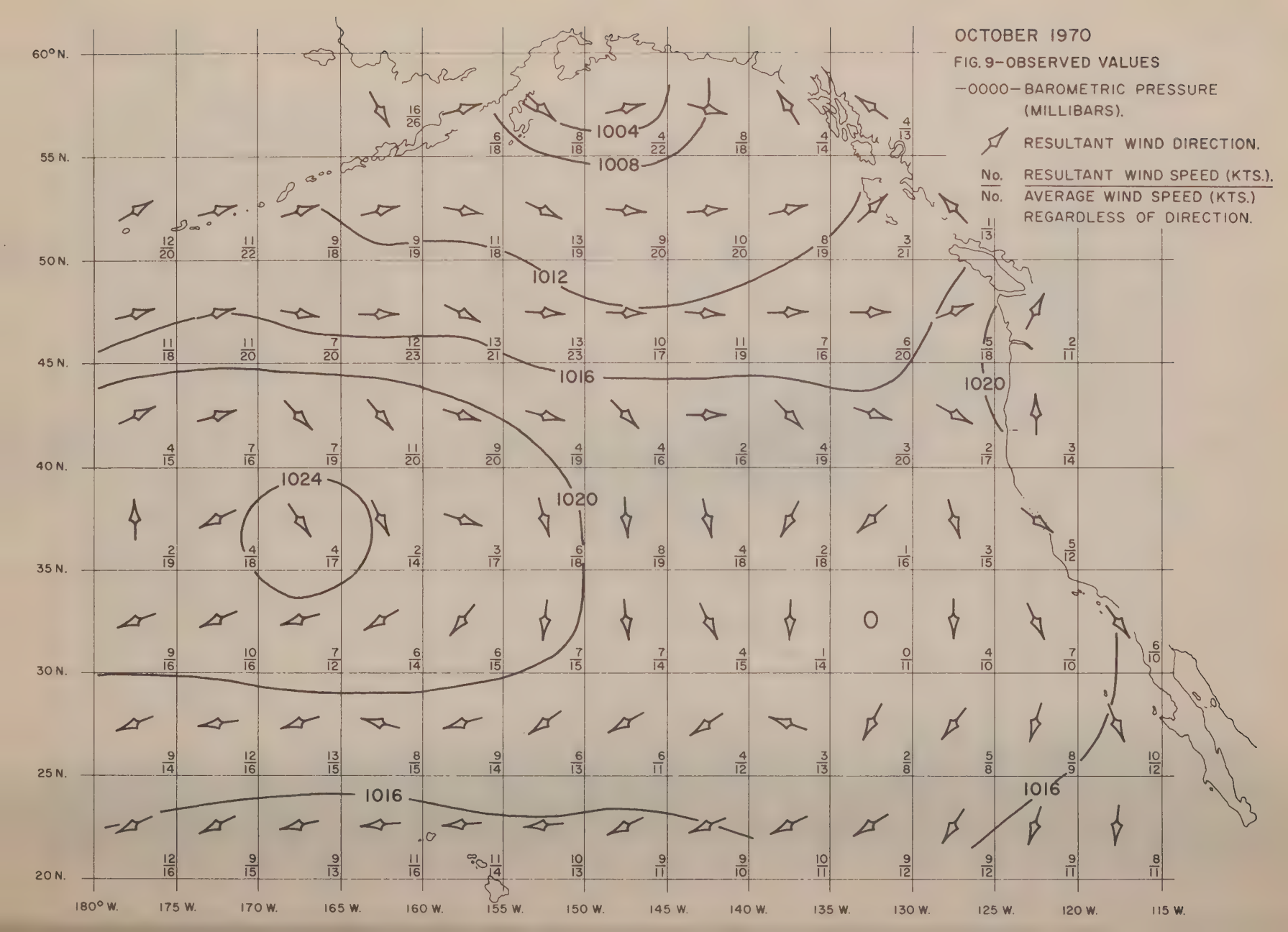

OCTOBER 1-31, 1970
FIG. 4 - DEVIATION OF SEA SURFACE TEMP. (°F) FROM OCTOBER 1969. HATCHED AREAS COLDER IN 1970.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°

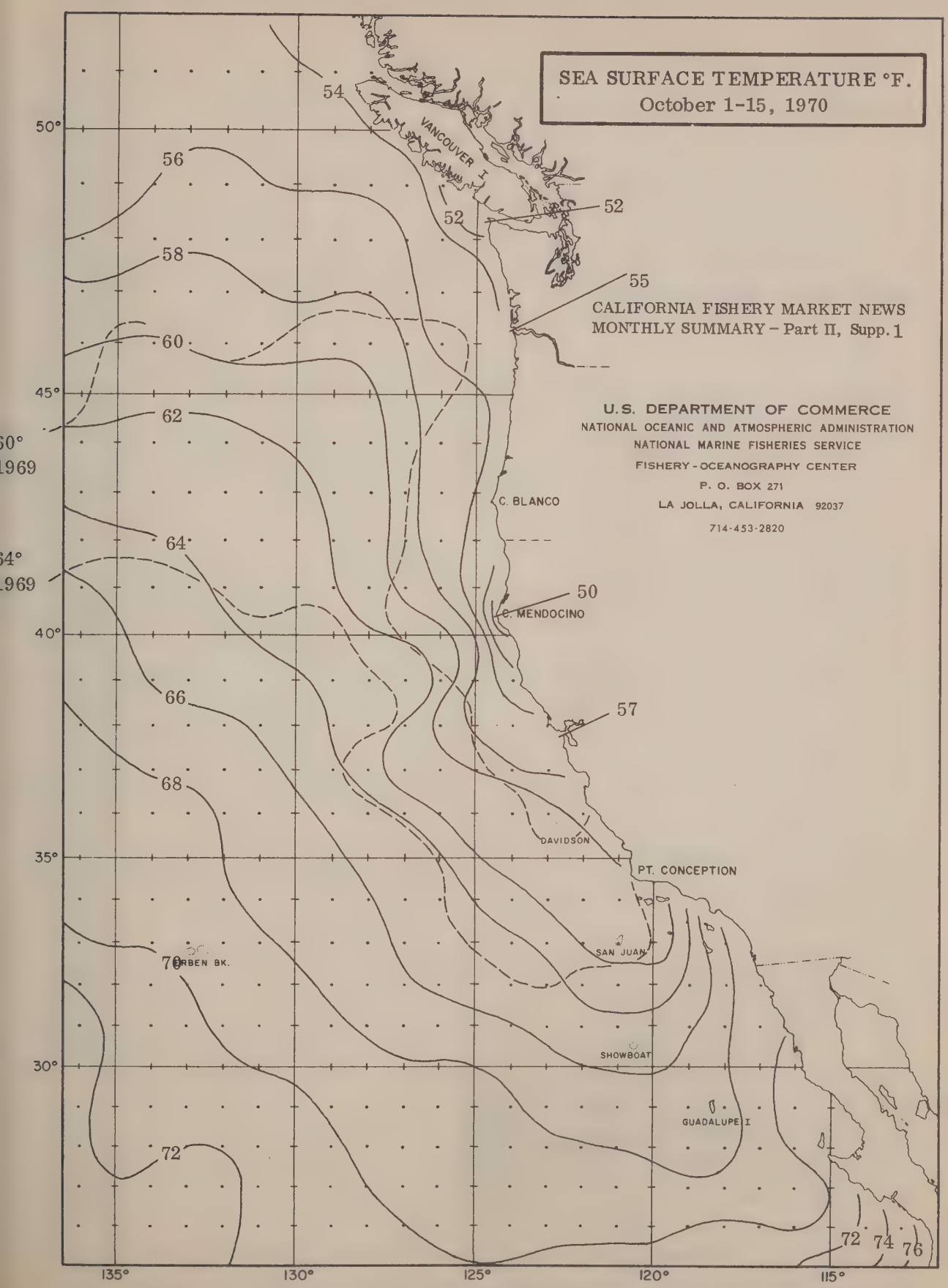

OCTOBER 1-31, 1970
FIG. 5-MEAN SEA SURFACE TEMPERATURE (°F). DASHED LINES INDICATE SPARSE DATA.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GULF OF CALIFORNIA
GULF OF PANAMA
GUATEMALA
HONDURAS
NICARAGUA
COSTA RICA
PANAMA
TUAMOTU ARCHIPELAGO
MARQUESAS IS.
SAMOA ISLANDS
TONGA ISLANDS
COOK ISLANDS
KERMADEC IS.
Guaymas
Mazatlan
San Blas
Corrientes
Acapulco
Salina Cruz
Champerico
San Jose
Corinto
Panama
Buenaventura
Guayaquil
Callao
Lima
Pisco
Chala
Iquique
Arica
Antofagasta
Coquimbo
Valparaiso
Tahiti
Rarotonga
Easter I.
Juan Fernandez
Trujillo
Chimbote
Salaverry
Paita
Tumbes
Manzanillo
Acapulco
Puerto Vallarta
Mazatlan
Guaymas
Topolobampo
Mazatlan
Socorro I.
Clarion I.
Roca Partida
Johnston I.
Palmyra I.
Christmas I.
Fanning I.
Canton I.
PHOENIX ISLANDS
UNION ISLANDS
Malpelo I.
Galapagos Is.
Cocos I.
Clipperton I.
Revilla Gigedo Is.
Socorro I.
Roca Partida
Clarion I.
Johnston I.
Palmyra I.
Fanning I.
Canton I.
PHOENIX ISLANDS
UNION ISLANDS
Malpelo I.
Galapagos Is.
Cocos I.
Clipperton I.
Revilla Gigedo Is.

OCTOBER 1-31, 1970
FIG.6-DEVIATION OF SEA SURFACE TEMP.(°F.) FROM LONG TERM MEAN. SHADED AREAS COLDER IN 1970.
MEXICO
SOUTH AMERICA
INSUFFICIENT DATA

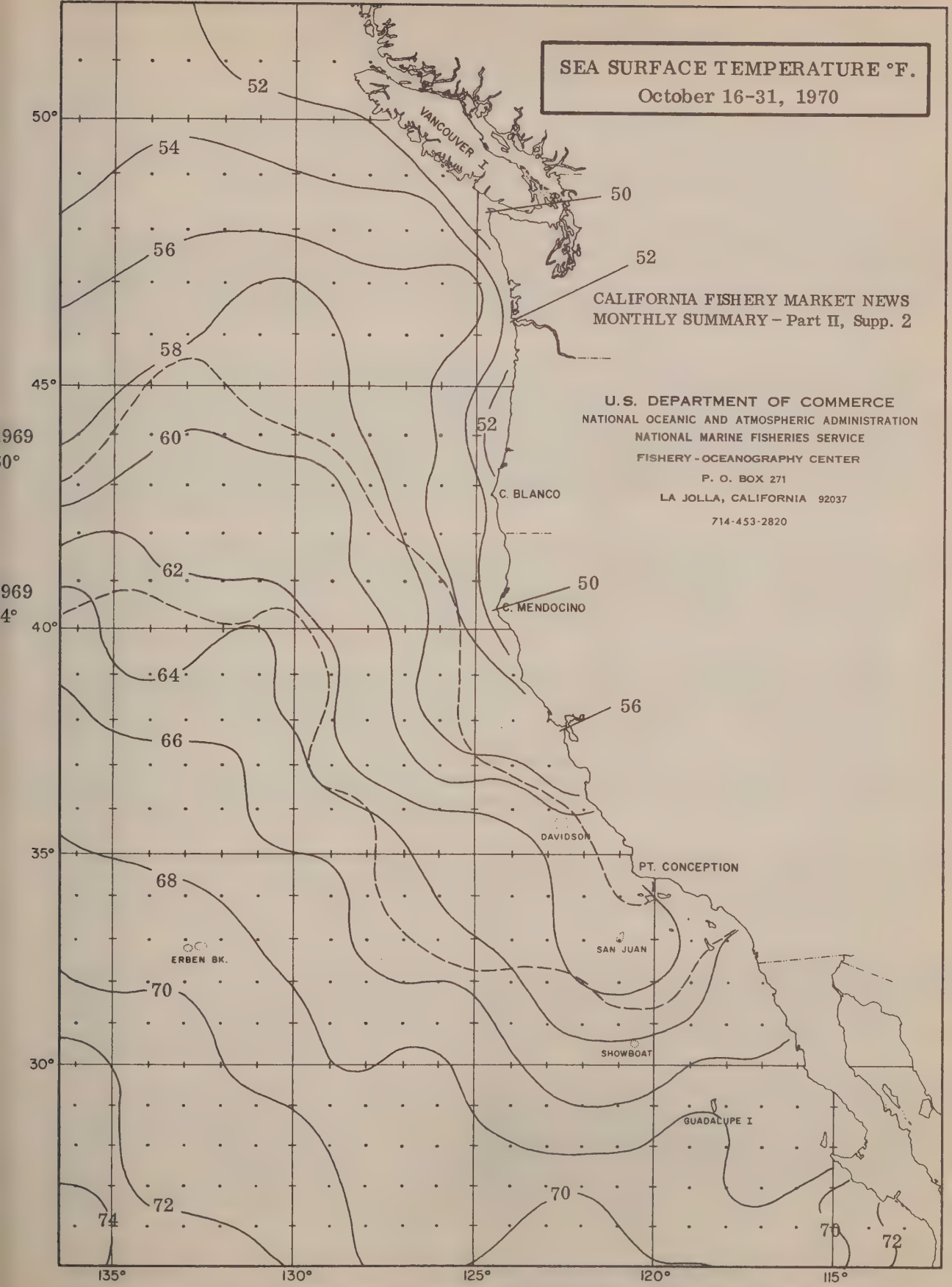

OCTOBER 1-31, 1970
FIG.7-DEVIATION OF SEA SURFACE TEMP. (°F.) FROM OCTOBER 1969. SHADED AREAS COLDER IN 1970.
MEXICO
SOUTH AMERICA
INSUFFICIENT DATA


OCTOBER 1961–1970
FIG. 8–OBSERVED MEAN VALUES
—0000— BAROMETRIC PRESSURE (MILLIBARS).
RESULTANT WIND DIRECTION.
No. RESULTANT WIND SPEED (KTS.).
No. AVERAGE WIND SPEED (KTS.) REGARDLESS OF DIRECTION.
1000
1004
1008
1012
1016
1020
1016
1016
60° N.
55 N.
50 N.
45 N.
40 N.
35 N.
30 N.
25 N.
20 N.
180° W.
175 W.
170 W.
165 W.
160 W.
155 W.
150 W.
145 W.
140 W.
135 W.
130 W.
125 W.
120 W.
115 W.


OCTOBER 1970
FIG. 9-OBSERVED VALUES
—0000— BAROMETRIC PRESSURE (MILLIBARS).
RESULTANT WIND DIRECTION.
No. RESULTANT WIND SPEED (KTS.).
No. AVERAGE WIND SPEED (KTS.) REGARDLESS OF DIRECTION.
1004
1008
1012
1016
1020
1024
1016
1016
60° N.
55 N.
50 N.
45 N.
40 N.
35 N.
30 N.
25 N.
20 N.
180° W.
175 W.
170 W.
165 W.
160 W.
155 W.
150 W.
145 W.
140 W.
135 W.
130 W.
125 W.
120 W.
115 W.



NOTE: Dashed lines indicate positions for 60° and 64° isotherms for 1969.



NOTE: Dashed lines indicate positions for 60° and 64° isotherms for 1969.

UNITED STATES DEPARTMENT OF COMMERCE
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NATIONAL MARINE FISHERIES SERVICE
Fishery-Oceanography Center
La Jolla, California 92037

BULLETIN NO. 70-8

ALBACORE FISHING REGION NARROWS TO CENTRAL CALIFORNIA

The most significant change in the fishery during the first 2 weeks of October was the constriction of the fishing area to the central California region from Point Arguello to San Francisco. Almost all bait boats which had been fishing off Oregon and Washington moved southward into California waters during the first week in October. About the same time, jig fishing off northern California slowed, and the fleet in this area moved southward towards better fishing off San Francisco and Monterey. Fishing off southern California became progressively worse, and by the first week in October almost all boats had moved northward to off Morro Bay.

The best fishing during the past 2 weeks has been the region from Guide Seamount to the Monterey Seavalley about 40-50 miles offshore. Other good areas have been 40-50 miles off Points Arguello, Buchon, and Sur. Commercial fishing at times has been as close as 15-25 miles offshore, however, boats farther out had the best catches. Although a few jig scores have been as high as 500-600 fish per day, most boats averaged about 100 fish per day during the past 2 weeks. High scores by jig boats became less frequent during this period than earlier in the season. For a few days bait boats had good scores off Guide Seamount, with one boat reporting 2,500 fish in a day. However, scores in general have been much lower over the past 15 days. A common observation within the fleet has been spotty concentrations of large albacore and a corresponding fluctuation in daily scores. Many bait boats and some jig boats have closed out the season, but the majority of the jig fleet is still fishing off central California.

West Coast landings from the beginning of the season through September 1970 totaled about 21,000 tons or 500 tons more than in 1969 and 2,800 tons more than the 1960-1969 10-year average. California landings through September 1970 are about 8,000 tons, 4,500 tons greater than in 1969, reflecting the best season to date since 1964. Oregon landings through September 1970 are about 10,500 tons, 3,500 tons less than in 1969 and the lowest total since 1966. Washington landings through September 1970 are about 2,000 tons, close to those in 1969 and well above the average. British Columbia landings through September 1970 are about 500 tons or half of last years figure.

The strong north to northwesterly winds that persisted along the entire U.S. west coast during most of the period from August through September decreased in intensity during the first 2 weeks in October. This decrease in winds, resulting in less intense coastal upwelling, was most pronounced along the central and southern California coasts due to weak pressure gradients caused by a low pressure trough that developed over the interior and coastal regions of California.

Seasonal cooling of the ocean surface layer has begun, with sea surface temperatures dropping 2-4° F from those of the September 16-30 period offshore the Pacific Northwest and northern California. Temperatures offshore central and southern California warmed 1-2° F during the first 2 weeks of October, reflecting the decrease in upwelling in these regions. However, these temperatures are still 2-4° F below the long-term average.

The Extended Forecast Division of the National Weather Service expects most storm systems that develop in the Gulf of Alaska during the next 2 weeks to move into eastern Alaska and northwestern Canada rather than into the Pacific Northwest. Above normal temperatures are expected to persist over the Pacific Southwest, creating a low pressure trough over the interior and coastal regions of California. Consequently, winds off central California will, in general, be favorable for fishing activity during the last 2 weeks of October.

The outlook for the next 15 days of October is: 1) the fishery will continue to narrow in scope as the season gradually ends; 2) the fishery will continue to develop off Morro Bay while tapering off near San Francisco; 3) good fishing will continue, however, scores will not be as high as earlier in the season since the peak of the fishery has passed; 4) landings will begin to decline as some of the boats finishing their season will effectively reduce the capacity of the albacore fleet presently at sea; 5) fishing reports indicate that this season will be another long one, however, it probably will not last as long as in 1969 when some boats fished until mid-December.

The NMFS R/V DAVID STARR JORDAN departed San Diego on October 5 for an 18-day albacore-oceanography cruise. As reported in Bulletin 70-7, the purpose of the cruise is to investigate the migration route followed by albacore when they leave the American west coast fishery near the end of the fishing season. The cruise track is centered along 140° W between 35° N and 42°30' N. JORDAN took six albacore ranging from 7-29 pounds (and lost five additional hookups) on October 13 near 42° N. The water temperature was about 64° F. All fish reports from the JORDAN cruise are incorporated into the daily advisory broadcasts over radio station WWD. JORDAN will also transmit fish reports to interested boats over the normal fishing boat frequencies. The call letters for JORDAN are WTDK.

October 16, 1970

Staff, Fishery-Oceanography Group
R. Michael Laurs, Leader

UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
Fishery-Oceanography Center
La Jolla, California 92037

BULLETIN NO. 70-9

LATE SEASON ACTIVITY LOCALIZED

The albacore fishery has slowed during the past month and is now entering a late season phase of localized effort off central California, especially near Morro Bay. As daily scores decrease, an increasingly larger number of boats are closing out the 1970 albacore season. Many of these boats are preparing for other fisheries; some jig boats are readying crab pots for the season beginning in December, and most of the large bait boats have quit fishing to prepare for the tropical tuna season. However, the availability of albacore during the last 2 weeks of October indicates that the season will be prolonged, weather permitting.

Jig scores have averaged about 60-100 fish per day during the past 15 days, and on several days scores greater than 200 fish were reported by the high boats. On October 22, some of the smaller bait boats were reported to have caught about 4 tons per boat on bait, but most of the bait boats still fishing albacore have been trolling jigs for the past 2 weeks. The most consistent scores have been made fairly close to shore (about 25-40 miles) from Point Arguello to San Simeon, with a center off Point Buchon. Higher scores were reported 80-100 miles off Point Buchon during the third week of October but they persisted for only a few days. Spotty concentrations of albacore and fluctuating scores among boats have been reported for the past month off central California. Although large areas of albacore have been observed in various places along central California, they generally have not been biting.

The Extended Forecast Division of the National Weather Service expects an above average number of frontal systems to enter the U.S. west coast from the Gulf of Alaska during November. As these storm fronts reach central California waters, winds will increase from the southwest causing high seas and conditions generally unfavorable for albacore fishing. Although the fish are expected to remain off part of central California during November, fishing effort could be seriously hampered by this rough weather.

The outlook for the remainder of the season is: 1) Daily scores, landings, and the number of boats fishing will continue to decrease; 2) the late season albacore will remain centered off Morro Bay until the season ends; 3) a few boats could still be fishing at the end of November; and 4) total west coast landings for 1970 will be slightly lower than 1969.

On October 31, the last "Daily Albacore Fishery Information" broadcast was transmitted for the 1970 season. Effective November 1, 1970, Radio Station WWD, licensed to the National Marine Fisheries Service, will operate on newly assigned frequencies. This will be a full duplex operation in which boats will listen on WWD transmitting frequencies and transmit on WWD listening frequencies. The frequencies the vessels will utilize are:

Listen	Transmit
4410.8 kHz	4112.2 kHz
8791 kHz	8257 kHz

Boats wishing to hear the "Daily Albacore Fishing Information" broadcast from WWD in the 1971 season are advised to purchase the appropriate listening crystals. Crystals presently in use will not be capable of receiving these broadcasts.

This bulletin is the last of a series of nine albacore advisories published during the 1970 albacore season. A summary of this season will be included later this year in "Fishing Information."

The National Marine Fisheries Service (formerly the Bureau of Commercial Fisheries) albacore advisory program is intended to assist the albacore fishing industry by providing information on the environment, both oceanographic and meteorological, and the albacore fishery which the fishermen may use in making decisions regarding fishing strategy. We welcome comments concerning our 15-day sea surface temperature charts, fish bulletins, and daily albacore fishing information broadcast which is transmitted over marine radio bands, or general comments which may assist in the improvement of the program. The NMFS albacore advisory program involves the cooperation of many people and groups. We wish to thank all those involved for their excellent support: cooperating fishermen, fish buyers, canneries, Western Fishboat Owners Association, Navy Fleet Numerical Weather Central (Monterey, California), Extended Forecast Division of the National Weather Service, Oregon State University, Fish Commission of Oregon, California Department of Fish and Game, and many others.

November 2, 1970

Staff, Fishery-Oceanography Group
R. Michael Laurs, Leader